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Recycling in Jordan

Quarter Two Progress Report

January 1, 2021, to March 31, 2021

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Contract Number: 72027820C00007
Contract Period: August 7, 2020- August 6, 2025
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ACRONYMS AND ABBREVIATIONS

BCC	Behavior Change Communication
CAPEX	Capital Expenditures
CDCS	Country Development Cooperative Strategy
COVID-19	Coronavirus Disease of 2019
DO	Development Objective
EPR	Extended Producer Responsibility
FY	Fiscal Year
FY 21	Fiscal Year 2021
GAM	Greater Amman Municipality
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoJ	Government of Jordan
JCI	Jordan Chamber of Industry
JORSIC	Jordan Standard Industrial Classification
KIIs	Key Informants Interviews
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation and Learning
MOENV	Ministry of Environment
MOITS	Ministry of Industry, Trade, and Supply
MSA	Market Systems Analysis
MSW	Municipal Solid Waste
NGO	Non-Governmental Organization
NMISW	National Monitoring Information System for Waste
OPEX	Operating Expenditure
PIRS	Performance Indicator Reference Sheet
Q	Quarter
Q2	Quarter Two
SG	Secretary General
SGB	Small and Growing Business
STTA	Short-Term Technical Assistance
SOW	Scope of Work
ToT	Training of Trainer
USAID	United States Agency for International Development

ACTIVITY OVERVIEW

Activity Details

Table 1: Activity Details

Activity Name	
Activity Start / End Date	August 7, 2020 – August 6, 2025
Name of Prime Implementing Partner	Chemonics International Inc.
Contract Number	72027820C00007
Name of Subcontractors/Sub-awardees:	Chemonics Egypt, MAGENTA Consulting Limited, Banyan Global, and GreenPlans
Geographic Coverage (Governorates / Districts)	Amman
Reporting Period	January 1 - March 31, 2021

Executive Summary

The Recycling in Jordan Activity is working together with Amman's commercial sector waste generators, private sector recycling service providers, the Ministry of Environment (MOENV), the Greater Amman Municipality (GAM), and relevant business associations to increase the commercial sector's demand for and use of recycling services in Amman through implementing innovative and sustainable solutions. The Activity is utilizing a market-based approach to expand and improve private sector-led solid waste management services, increase demand for recycling services by the commercial sector, improve profitability and performance of private sector service providers, and increase government support for private sector engagement in solid waste management. During Q1/FY21, the Activity has embarked on various investigations to aid in understanding and informing responses. Central among these is the Market Systems Analysis (MSA), which is informed and underpinned by various analysis including value chain mapping, qualitative behavior barrier analysis, and gender analysis. The MSA has identified set of constraints to which the Activity designed a programmed intervention to respond to.

This second quarter (Q2/FY21) has been characterized by significant progress in three strategic areas; expansion and improvement of private sector recycling market; increasing demand for recycling services by commercial sector; and improvement of business enabling environment for recycling services and markets. In its efforts to expand and improve private sector recycling market, the Activity designed a training and coaching program, *small and growing business (SGB) training program*, to equip service providers with business skills to improve understanding of the market and enhance value proposition, hence improving their ability to promote their services more effectively. Based on a well-defined set of selection criteria, the Activity shortlisted 18 service providers as potential participants in the first training cohort. The Activity finalized the development of 8 training modules in cooperation with Chemonics Egypt and expect to roll out the first training Cohort between May – August 2021. Additionally, the Activity team initiated the intervention design for the Waste pickers certification program. The Activity is looking on how best to integrate the waste pickers in the recycling value chains as well as establishing a training and a certification program that can lead to a form of recognition by GAM. In addition, the Activity started engagement with Tadweer (an MRF facility established in partnership with GAM) and reached an

agreement to conduct an assessment of the current situation at Tadweer from an operational, technical, financial and contractual standpoint, in an effort to come up with a turnaround plan for Tadweer.
On the side of increasing demand for private recycling services, the Activity developed a scope of work for Magenta, a consortium partner on the USAID Recycling in Jordan Activity, to design and deliver a Behavior Change Communications (BCC) Strategy. The Activity envisions the strategy to support an increased demand for private recycling services by educating and raising awareness among commercial waste generators towards the recycling concept and its benefits, improving their attitudes towards the adoption of waste management/recycling practices, and helping them to engage with recycling providers. The BCC Strategy will follow a participatory development approach with key partners from the public and private sectors. Therefore, to inform the design of the strategy, the Activity will conduct in Q3/FY21 a consultation workshop with key stakeholders including GAM, MOENV, service providers, business associations, and commercial waste generators to inform the BCC strategy. The Activity is planning to hold a two-day workshop on April 19th and 20th, 2021 at the Intercontinental Hotel in Amman.
On the other hand, the Activity engaged Chemonics Egypt to support in developing two important tools: a recycling business case and a SWM and recycling guidebook. These tools are to be used by the Activity and partners such as recycling service providers and business associations among medium and large waste generators to increase their adoption of recycling services offered by private recycling service providers. The tools will also be part of a training and awareness raising program targeting waste generators and related business associations and NGOs. The Activity anticipates completion of these tools by the end of Q3/FY21. Moreover, during this quarter, the Activity started an evaluation process of establishing a pilot intervention to test the business case of implementing a SWM and recycling business model based on an integrated solution concept. It will validate the feasibility of implementing bundled recycling services offered by private sector leaders to the commercial sector to eventually comply with the SWM laws and bylaws of the Amman Municipality and MOENV. The strategic rationale behind the pilot intervention is to test and demonstrate a successful showcase that highlights to service providers and waste generators the business case and feasibility of implementing integrated solutions based on bundled SWM and recycling services. This in return will increase the adoption of recycling practices among commercial waste generators.

Also, during this quarter, the Activity continued the momentum built during the first quarter enforcing and strengthening the national regulatory policy for recycling services and material markets. Based on MOENV's request, the Activity reviewed and suggested revisions to the nascent "non-hazardous solid waste management" bylaw. Moreover, the Activity recommended that MOENV develop an internal procedure at the legal affairs unit, whereby MOENV may engage the private sector early on in the legislation preparation and issuance process. On the other hand, The Activity will support the MOENV in preparing guidelines for the obligatory waste management plans, including templates, for commercial waste generators. In addition to producing qualification criteria to be used by MOENV for individuals and entities eligible to create commercial waste management plans (CWMP) for waste generators. For this purpose, the Activity identified a qualified consultant to support on this task and get MOENV consensus on his recruitment.

ACTIVITY IMPLEMENTATION

1. COMPONENT ONE: PRIVATE SECTOR RECYCLING MARKETS IMPROVED AND EXPANDED

1.1. Improve Business Performance and Profitability for Private Sector

1.1.1 Improve Businesses Capacity (managerial, technical, and access to information)

Training and Coaching

The market system analysis (MSA) of the recycling sector in Amman identified a set of main constraints that negatively affect the development of the sector and hinder private service providers from prospering and enhancing their value proposition. The findings showed insufficient suppliers of recycling services, the majority of which lack the required business skills and capacities to deliver a quality 'waste solution' to large commercial waste generators. Most of the existing service providers lack managerial and technical capacities and access to information, which limit the extent and coverage of their services and hinder their ability to meet market demands.

Therefore, in Q2/FY21, the Activity designed a training and coaching program, *the small and growing business (SGB) training program*, to equip service providers with business skills to improve their understanding of the market and enhance their value proposition, hence improving their ability to promote their services more effectively. The Activity partnered with Chemonics Egypt, a subcontractor on the Activity, to design, develop, and deliver the training (starting in Q3/FY21) to the first cohort of businesses in the recycling sector in Jordan.

During Q2/FY21, the Activity shortlisted 41 service providers across the value chain to participate in the training and coaching program. The selection criteria included but were not limited to type of waste collected, source of collected waste, geographical coverage, number of employees, and innovative business models. The Activity also gave particular attention to women-owned growing companies who are currently providing recycling services. Twenty-five companies responded, and the Activity met with them accordingly. Annex XII provides a profile of service providers shortlisted as recipients of the training and their response to the invitation to participate in the training.

Moreover, the Activity developed a needs assessment tool called the Performance Improvement Priorities Tool to set selection criteria for the first training cohort. This tool was used during meetings with the interested companies mentioned above to collect information about existing capacities and training needs, and captured details about services providers' current services, capacities, and willingness to participate. Service providers were scored based on these criteria to categorize their current performance and training needs. Around 70% of the companies expressed an interest in being enrolled in the training program. As a result of the meetings, the Activity shortlisted 17 service providers as potential participants in the first training cohort. Findings from the meetings and training needs assessment were shared and discussed with Chemonics Egypt to be considered in the design of the SGB training program including the methodology, curricula, and materials. The training materials were designed and adapted by Chemonics Egypt to reflect the Jordanian context and local recycling market needs including GESI as a cross cutting consideration. The training modules include the below topics:

- Solid Waste Management, characterization, and sorting techniques – theoretical (6-8 online training workshops/sessions).
- Solid Waste Management, characterization, and sorting techniques – practical (to be delivered on the ground).
- Industry analysis and evaluation (1-2 online workshops/sessions).

- Marketing, sales, and promotion (1-2 online workshops/sessions).
- Process mapping and operations (1-2 online workshops/sessions).
- Supply chain optimization (1-2 online workshops/sessions).
- Business modeling (1-2 online workshops/sessions).
- Quality assurance (QA) and quality control (QC) (for technical/operational experts) (1-2 online workshops/sessions).

The eight modules were submitted to USAID for approval on March 31, 2021. An additional training module on financial knowledge and literacy will be developed by a local consultant during Q3/FY21 to provide the participants with a good understanding of the relevant financial services and practices in Jordan. The Activity is planning to conduct the first SGB training cohort starting in May 2021. Below are the designed implementation stages for the SGB program:

- **Stage 0:** Participant outreach and selection led by the Activity, which was completed in Q2/FY21.
- **Stage 1:** Service providers training program (online): local trainers along with recycling service providers are to be trained on all the SGB program materials. The field work under waste categorization will be on-the-job training as part of the SGB program and not separate. This stage will start in Q3/FY21.
- **Stage 2:** Initial assessment and selection of trained trainers to proceed to the ToT training. This stage will be conducted in Q3/FY21.
- **Stage 3:** Training of Trainers (ToT) as well as presentation/communication and facilitation skills (embedded in each of the workshops). This stage will start in Q3 /FY21.
- **Stage 4:** Assessment, certification, and promotion of trained trainers led by Chemonics Egypt and the Activity. This stage will be conducted in Q3 /FY21.
- **Stage 5:** Chemonics Egypt to shadow, facilitate and deliver parts of the SGB programs. Local trainers will be the main trainers. This stage will start in Q3 or Q4/FY21.

Furthermore, during this quarter, the Activity identified three potential host organizations who could offer sustainable private-led solutions and services for the SGB training program. In this way, the Activity will achieve a sustainable, market-based solution by enabling private companies to offer training solutions to the recycling sector. The identified organizations are: Future Pioneers for Empowering Communities' Members, EJABI and Qutoof. Several meetings were conducted with these organizations, for the purpose of exploring the possibility of incorporating the solid waste management business training modules into their training offerings to service providers in the recycling sector, including outreach mechanisms, aiming to sustain the training services as a supporting function to the recycling market system. The Activity will invite these organizations to participate in the first training cohort and subsequent ToT component.

The evaluation of these companies' capacities and potential partnership is ongoing and follow-up meetings will be conducted with them and other potential organizations by early Q3/FY21to shape value-added partnerships. In the meantime, the Activity team developed a Joint Action Plan (JAP) template to be shared later with potential partner(s) to articulate the shared roles and responsibilities for each party in the area(s) of partnership.

Improve Backward and Forward Linkages

The lack of linkages and connections between waste generators and potential recycling service providers is a main constraint that hampers leveraging key entry points for the supply or demand of recyclable

materials and recycling services in the local market. This is described in further detail in component 2. Moreover, weak forward and backward linkages on the side of recycling service providers including collectors, sorters, aggregators, recyclers, manufacturers, exporters, and end market industries were reported in the MSA's initial findings and key informant interviews (KIIs). This weakness is deteriorating supply chain practices across the value chain and undermining regular supply, service quality, pricing, and marketing. Moreover, during this quarter, the Activity team developed profiles for the service providers who responded to the meetings with updated information about their services, capacities, geographical coverage, and functions across the value chain. As planned, this profiling will be used during the next quarter in designing the components of the recycling directory.

Technical Assistance and Upgrade

During the inception phase, a meeting was conducted with Tadweer, which is a privately owned company that has a public private partnership agreement (PPP) with the Greater Amman Municipality (GAM) to recover recyclable materials from mixed Municipal Solid Waste (MSW). Tadweer established a semi-automatic dirty Material Recovery Facility (MRF) based on a Design-Build-Operate-Transfer (DBOT) contract for a concession period of 15 years. This MRF is in Al-Ghabawi adjacent to the landfill site and is designed to reduce recyclable waste from the mixed MSW, diverting recyclable waste from the landfill. Unfortunately, the project was suspended in 2008 due to legal disputes between GAM and Tadweer for nearly 10 years and it re-commenced two years ago. Major maintenance and renovation works were conducted, and the semi-automatic sorting line is currently working. However, the system is still considered old fashioned and requires major upgrades.

According to Tadweer, the current situation indicates that the MRF is not properly operated and there are difficulties in reaching the design capacity due to operational problems. Tadweer failed to handle the large flow of the mixed municipal waste and recover recyclable materials as was foreseen in the contract. Lack of regular supply of quality and quantity of recyclable inputs is reported. This situation leads to failure in fulfilling the contractual requirements and covering the costs and expenses associated with the operation.

Tadweer is seeking technical assistance from the Activity to improve their current operations. Meanwhile, GAM has expressed their willingness to support the operation of the MRF by improving the quality of the waste they divert to the MRF by targeting collection routes from commercial areas and high-income districts over Amman.
During Q2/FY21, the Activity team conducted a field visit to the Tadweer MRF on February 28th for the purpose of diagnosing the current situation and status. The following initial needs for assessing the facility and its operation were identified by the team:

- Inspect the efficiency of equipment and machineries, including the provision of technical support scale up processes.
- Expand awareness of the means to improve quality and quantity of waste, including vocational training on waste sorting analysis.
- Revisit the contractual agreement with GAM, including roles, responsibilities, routing, gate fees, etc.
- Conduct a desk analysis of recycling market demand to improve their understanding of the market.

Moreover, a meeting was conducted with Tadweer and the GAM Deputy City Manager on March 29th, 2021 to confirm the direction for conducting an initial assessment of the current situation in terms of technical, operational, financial, and contractual considerations, and to come up with recommendations for potential areas of intervention to improve Tadweer's current operations. Furthermore, the Activity developed a SOW to procure technical assistance from Chemonics Egypt, as an experienced consultant in this area, to conduct the assessment and develop a road map for improvement to be shared and

agreed upon with Tadweer and GAM. This assignment will be conducted once the scope is finalized by both parties of this PPP during Q3/FY21.

1.1.2. Improve Quality and Quantity of Recyclable Materials

Improve service providers' understanding of quality standards and practices.

According to the market systems analysis conducted by the Activity in Q1/FY21, a key constraint to improving the quality and quantity of recyclable materials is the lack of quality control standards, stemming from a lack of knowledge of good sorting and handling practices. Contamination often reduces the quality, price, and utility of different inputs, rendering secondary and tertiary processing necessary, which increases the cost of inputs, reduces margins, and undermines sector competitiveness. This is causing issues with respect to market access, manufacturers' demand for recyclable feedstock, and monopolistic price setting and behaviors.

Through meetings conducted with service providers, the Activity confirmed that they are indeed facing the above-mentioned quality constraints to supplying quality recyclable materials. This feedback was reflected in the training module titled *Quality Assurance and Quality Control (waste valorization)* to ensure better localization and learn best practices.

In the next quarter, the Activity will continue meetings with different service providers across the recycling value chain to have a better understanding of the forward and backward end user's perception in areas including product quality, customer service, and employees' knowledge. These meetings will include focus group discussions and/or customer satisfaction surveys. In the end, the collected information will help in developing and customizing QC and/or QA manuals that comply with market and governmental requirements.

Improve service providers' accessibility to recyclable materials.

The overall objective of the intervention is to increase the quantity and volume of recyclables in the value chains of the recycling sector in Amman by integrating the informal waste pickers into formal waste collection and the recycling supply chain and by improving their accessibility to recyclable materials generated by the commercial sector. The waste picker training and certification program will be used as a tool to increase their capacity and willingness to be integrated into formal waste collection and the recycling supply chain. The Activity is also looking at options of how waste pickers can be recognized by GAM or other entities. This recognition would help in better integrating waste pickers into the recycling value chains. Specifically, an upcoming waste picker training and certification program will be delivered by Chemonics Egypt, a consortium partner on the Activity. The Activity team is involved in designing the objective, approach, targeted audience, training curricula and materials of the program.

Recycling service providers confirmed their limited ability to access recyclable materials and, therefore, to increase their volumes and financial returns and better serve their clients. The Activity team investigated the possibility of integrating the informal waste-pickers into recycling service providers' operations. The service providers' feedback to this idea was largely positive. Their ideas for integration of informal waste pickers fell into three main categories:
(a) outsourcing their services, (b) employment, and (c) dealing with one body that governs waste-pickers operations. Yet, as per service providers feedback, to incorporate waste-pickers into their operations, they stipulated that waste pickers should be socially accepted, and equipped with improved competencies. Therefore, the Activity team identified two potential host organizations that could supply the capacity development activities and advocate on behalf of the waste-pickers in such an integration

scheme with the SWM sector in Amman. These organizations are: Future Pioneers and Jordan Environment Society.

The Activity team conducted meetings with those organizations and they showed high interest and motivation to work with the waste-pickers. The meeting aimed to explore their capacities and the possibility of incorporating waste picker training modules into their training offerings. The design of the waste pickers training program will include invitations to these organizations to participate in the first training cohort and subsequent ToT component. The evaluation of their capacities and potential partnership is ongoing and the Activity team will hold follow-up meetings with them during early Q3/FY21to shape value added partnerships.

During March 2021, the Activity developed a SOW to procure the services of Chemonics Egypt to provide the waste picker training modules and curricula, as well as ToT materials. The training materials will be adapted to reflect the Jordanian context and local recycling market needs including GESI as a cross cutting consideration. The outline of the training modules would include topics as follows:

- General overview of integration into municipal source segregation schemes and improving their role in the recycling value chain as a service provider (presenting the goal and value of this training to the audience).
- Soft skills (negotiation skills, communication skills, self-confidence, social acceptance and behaviors/attitudes, respect, and value the public cleanliness and ownership).
- Access to waste.
- Business, management, and entrepreneurial skills.
- Waste cost recovery.
- Stakeholder mapping and awareness.
- Occupational health and safety.
- Combatting gender-based violence (GBV).
- The social, economic, and environmental benefits of working with waste pickers.

1.2. Recycling Services Expanded and Successful Models Replicated

1.2.1. Identify End-market Gaps and Opportunities.

There are no activities scheduled in this quarter.

1.2.2. Support Innovative Business Solutions

This intervention aims at supporting creative business ideas in the recycling market to inject new energy and innovation. The Activity understands that some service providers might not be able to expand and accelerate their services either vertically or horizontally to fill the market gaps and utilize potential business opportunities revealed from activity 1.2.1. Therefore, incubation of innovative business support services to the recycling market would be one of the solutions to achieve that. In Q2/FY21, the Activity explored possible interventions toward introducing new business solutions and incubation activities within the recycling sector. In February 2021, the Activity team met with several entrepreneurs and innovative business incubators in the recycling sector. This included the following meetings:

- On February 9, 2021, the Activity team met Mr. Mukarram Suleiman, who identified himself as a waste-picker. He came up with a solution that integrates waste-pickers with households through a mobile application "App". He is engaged in the entrepreneurship ecosystem in Jordan through getting the support from some business incubators and accelerators in Jordan. The app is not yet published.
- On February 10, 2021, the Activity met with Mr. Osama Ghweri, who developed a mobile android App "GreenJo" for collecting recyclables from the residential sources in Zarqa and

Amman. He is hosted and incubated by the Hashemite University, and Basmati-UNICEF program. The App got 20,000 $ as a grant from UNICEF to develop the programming of the application to have OS version as well as completing the licensing procedures from the competent authorities. The recycling business model followed is innovative and based on rewarding people with refundable points for collecting household recyclable materials such as plastics, metals, clothes, paper, and cardboards through integrating waste pickers as daily workers to collect the recyclables from their customers who requested the service on the App. The owner of Green Jo has futuristic plans to expand his services to commercial sector as well as the geographic service area to reach main cities like Irbid, Al-karak and Al-Salt. He is working on developing the payment integration through using the E-wallets for the cash out.

- On February 11, 2021, the Activity team met two entrepreneurs, Mr. Ahmed Karaki and Mr. Bilal Bataineh, who developed a mobile android app "يلا نفرز"that helps Jerash Municipality to effectively manage collecting recyclable materials from commercial shops in Jerash city.
- On February 2, 16, and 25, 2021, the Activity team met with a SWM business incubator - the Organic Fertilizer Eco Systems Association (OFES). The meeting improved the Activity's understanding of the SWM business incubator project such as its main activities, targeted types of startups, incubation cycle, pre-incubation, and incubation services. The incubator is a three-year project funded by the Innovative Startups and SMEs Fund (ISSF). The project is implemented by the OFES in partnership with EJABI and iPark. The original focus of the incubator was SWM in general, but specifically included green innovative ideas: compost, animal feed, etc. Yet, it is considering incubating innovative business ideas from other waste streams in the solid waste industry.
- In March 2021, the Activity team conducted a follow up meeting with the OFES to better understand the SWM business incubator and to explore possible cooperation mechanisms.

The Activity will continue to identify gaps and look for ways to support new innovative ideas and working with potential incubators to address new start up support needs.

2. COMPONENT TWO: DEMAND FOR AND UTILIZATION OF RECYCLING SERVICES WITHIN AMMAN COMMERCIAL SECTOR INCREASED

2.1. Awareness of Recycling Services among Commercial Sector Increased

2.1.1. Galvanize commercial sector interest in recycling.

During its inception phase, the Activity conducted a qualitative barrier analysis that identified key behavioral constraints hindering commercial waste generators' adoption of recycling practices in four targeted sectors: hotels, restaurants and cafes, malls, and hypermarkets. The analysis indicated that lack of knowledge and awareness is problematic. Overall, waste generators in different sectors have extremely low levels of knowledge and awareness of the recycling sector and/or services available. Moreover, waste generators surveyed across sectors showed that there is a dearth of knowledge, skill, and awareness regarding the importance of recycling at the community level in general. In addition, the majority of the commercial waste generators are not aware of such services or have never been approached by service providers. Lack of interest in recycling is also common.

During this quarter, and to address the identified low levels of knowledge and awareness in the recycling sector within the targeted commercial sectors, the Activity developed a scope of work for Magenta, a

subcontractor on the USAID Recycling in Jordan Activity, to design and deliver a Behavior Change Communications (BCC) Strategy. The Activity envisions the strategy to increase demand for private recycling services by educating and raising awareness among commercial waste generators towards the recycling concept, with notable benefits including cost savings and image enhancement, improving their attitudes towards the adoption of waste management/recycling practices, and engaging them with recycling providers. As planned under year one, the Activity prioritized four commercial sectors to work with: hotels, shopping malls, hypermarkets, and restaurants and cafes.

As part of the strategy development process, the Activity will conduct message testing through focus group discussions with commercial waste generators to understand which messages are most likely to convince companies to recycle across the different four sectors, including the companies that have already adopted private SWM services but not recycling. The Activity will also integrate these messages in its training/coaching for private sector recycling companies.

The BCC Strategy will follow a participatory development approach with key partners from the public and private sectors. Therefore, to inform the design of the strategy, the Activity will conduct in Q3/FY21 a consultation workshop with key stakeholders including GAM, MOENV, service providers, business associations, and commercial waste generators to inform the strategy. The Activity is planning to hold a two-day workshop on April 19th and 20th. The team finalized the participation list including the identification of main stakeholders to be invited to the workshop, ensuring the right balance of representation to ensure useful feedback. Refer to Annex XIII for more details about the list. Next steps include conducting introductory meetings with the identified stakeholders to introduce the Activity and this specific task before the workshop and extending official invitations.

Given the global COVID-19 pandemic, some activities may be conducted virtually, depending on government instructions and mobility restrictions. The Activity will also consider complying with government orders in terms of the maximum allowed number of participants for group activities of 20 persons at a time.

2.1.2. Cultivate a motivation to recycle by increasing waste generators knowledge on SWM and Recycling.

Apart from a few multinational organizations and hotels, most commercial waste generators engaged through the Activity do not have any formal SWM training and awareness raising programs about recycling for their employees, mainly due to the high cost of such programs. During Q2/FY21 and to motivate commercial sector waste generators to adopt SWM and recycling practices, the Activity developed a scope of work for Chemonics Egypt, a subcontractor on the Activity, to support in developing two helpful tools: a recycling business case and a SWM and recycling guidebook. These tools are to be used by the Activity and partners, such as recycling service providers and business associations among medium and large waste generators, to increase their adoption of recycling services offered by private recycling service providers.

The recycling business case is an interactive PowerPoint presentation that targets the four sectors initially identified in the year one work plan: hotels, restaurants, hypermarkets, and malls. The purpose is to present a concise summary of recycling as an opportunity to improve waste management practices and promote the benefits of recycling for waste-generating commercial entities. The case is positioned to be used by business associations and service providers to present the recycling benefits to commercial waste generators in different sectors. The package will include, but is not limited to, the following information, customized per sector:

- Approach to introduce recycling.
- Types of recyclable waste per sector.

- Economic benefits and guidelines on potential savings and benefits, per sector.
    - (e.g. reduction in fees/costs or better value for money services)
- Potential for reducing waste quantities and impact on waste hauling fees.
- Importance of separation at source to maintain quality and value of recyclable waste.
- Waste audit requirements of key waste streams to identify volumes and value of recycling.
- Opportunities to improve current waste management contracts considering waste generators that are currently using municipal hauling services, those that are using private service collection services for collection and disposal of waste, and those that are doing limited recycling activities.
- Requirements to introduce separation at source and impact on reduced costs/potential savings.
- Ways to engage waste generators' staff in recycling practice.
- Impact on corporate image and marketability.
- Highlight any reward mechanisms (national, regional, or international) that are applicable to waste generators.
- Highlight existing legislative framework compliance requirements and strategies that could increase adoption of recycling and improve compliance.
- Link the environmental and social benefits of recycling to the sector's specific key activities.
- Ways to promote the organization's environmental practice to the public and related benefits.

As for the SWM and recycling guidebook, this tool will highlight recycling and solid waste management best practices. The purpose is to provide commercial waste generators with a list of measures to reduce, reuse, and recycle waste, as well as measures to improve their waste management footprint. The guidebook will include, but is not limited to the below sections:

- List of measures which can be browsed by area of operation (for instance, garden, kitchen, etc.) and per commercial sector (hotels, restaurants, malls, hypermarkets, etc.).
- It can also be browsed by technical ease of implementation, cost, and environmental impact in a qualitative manner.
- Information about recyclers and waste management service providers
- Fact sheets describing the interventions and feasibility, if applicable, with ranges of costs and savings to maintain generality yet provide valuable insights per sector.
- Other identified topics as needed.

These two tools will be also part of a training and awareness raising program targeting waste generators, service providers, and related business associations and NGOs. The Activity anticipates completion of these tools by the end of Q3/FY21.

2.2. Linkages between the Commercial Sector and Recycling Service Providers Strengthened

2.2.1. Establish a business case for recycling among the commercial sector.

During Q2/FY21, the Activity conducted introductory meetings with business associations that represent the targeted sectors in year one, such as the Jordan Restaurants Association and Jordan Hotels Association. The meetings aimed to introduce the Activity's scope and objectives and highlighted areas of collaboration and partnership throughout the Activity's lifetime to ensure sustainability of the different interventions. During these meetings, the Activity highlighted linkages to the National Green Growth Plan for Jordan, the Tourism Sector Green Growth National Action Plan 2021-2025, the new Waste Management Framework Law No. 16 for the year 2020, and the Environmental Information and

Monitoring System of Waste Management Bylaw No. 85 for the year 2020. The team also shared the Qualitative Barrier Analysis – *Barriers to Recycling by Commercial Waste Generators*– conducted by the Activity, which targeted the above four sectors prioritized in the year one work plan.

Moreover, during this quarter, the Activity prioritized and selected 50 large waste generators from the four subsectors – hotels, restaurants, hypermarkets, and malls – which have the strongest business case for recycling and promise the greatest impact. Due to the COVID-19 pandemic, the Activity conducted physical and virtual introductory kick-off meetings with 14 large waste generators from the four sectors to verify their internal driving factors and main triggers to becoming "doers" or having the potential to become so. Other such meetings are being scheduled for Q3/FY21.

As part of the process, the Activity developed a guiding questionnaire to survey commercial waste generators' readiness and capabilities to adopting recycling practices. The questionnaire included inquiries related to internal and external factors for adopting recycling practices. (Refer to Annex IX for the full questionnaire). It covered for example, the availability of:

- SWM and recycling practices among waste generators and levels of satisfaction,
- SWM financial capability and/or a budget vs. current waste expenditure,
- SWM decision-making process,
- Solid waste and environmental corporate policies and targets,
- Recycling dedicated labor with recycling knowledge and awareness,
- Physical infrastructure and space, recycling equipment and/or transport fleet,
- Types of generated waste and quantities of recyclables,
- Separation at source/sorting capabilities and practices,
- External advisory/consulting support firms in SWM,
- Knowledge of the related governmental laws and regulations that enforce SWM and recycling behavior as well as government financial incentives and penalties,
- Knowledge and awareness of the services and service providers as well as the monetary compensation related to implementing recycling practices.

Summary of the findings on these factors from the meetings the team conducted are as follows:

- Awareness of the governmental laws and bylaws that enforce SWM and recycling behavior including the government financial incentives related to complying with these laws:

  Most surveyed commercial waste generators lack awareness of these laws, especially the 'non-doers'.

- Awareness of recycling practices and its monetary and non-monetary benefits:

  The majority of the commercial waste generators are aware of recycling practices and their environmental benefits but lack awareness of the recyclables' monetary value.

- Awareness of the availability of recycling services as well as recycling service providers:

  The majority of the commercial waste generators lack awareness of available recycling services and service providers, especially the 'non-doers'.

- Solid waste and environmental corporate policies and targets:

Such policies and targets are an integral part of Standard Operating Procedures (SOPs) and Key Performance Indicators (KPIs) in multi-national corporations and chains such as hotels.

- Recycling dedicated labor:

  Across surveyed companies, none were dedicating labor to carry-out recycling practices such as separation at source or sorting. Nevertheless, some corporations such as hotels utilize their staff to assist the contracted service providers in sorting.

- Decision-making process to adopt recycling practices:

  Such processes vary between corporations depending on the availability of environmental policies, SWM targets, and KPIs in addition to the SWM budget among other factors that make the adoption of recycling practices simple and straightforward.

- Recycling equipment and physical infrastructure such as space:

  Most waste generators in the sectors of hotels, malls, and hypermarkets have no recycling equipment except for waste bins placed in dedicated space such as waste rooms. Moreover, their infrastructures allow access and comply with the vehicles of the service providers.

  While in the restaurant sector, most waste generators don't have the infrastructure, nor the equipment that caters to recycling practices. They utilize the public bins offered by Amman municipality to drop off their waste.

- Recyclables separation at source/sorting capabilities:

  Due to environmental policies and SOPs, the hospitality sector's staff is oriented about SWM practices including the concept of separation at source as well as sorting of recyclables, while such concepts are new to most sectors. Nevertheless, most waste generators who are 'doers' adopt sorting at source as an offered service mainly because this is a market trend influenced by service providers. Separation at source practice along with its benefits must be better promoted and presented in the market since it is a vital tool to recover recyclables with better quality hence better value.

- External SWM advisory/consulting firms:

  There are no SWM advisory/consulting firms currently in the market. Some waste generators depend on the SW and environmental guidelines dictated among their policies and SOPs.

Moreover, the introductory meetings helped the team capture a holistic view of all the factors that directly and indirectly influence the waste generators to adopt SWM, in particular recycling practices. These triggers are summarized as follows:

- Comply with environmental policies.
- Achieve corporate targets.
- Reach image-recognition.
- Attain social influence and pressure.
- Comply with SWM set budget.

Additionally, the meetings provided useful insights on understanding waste generators' perspective about the service providers' current offerings and the basis of their financial proposal structure versus GAM current fee structure and services. They are summarized as following:

- **Availability and diversity of services**: Most of the waste generators are aware of the waste collection services provided by service providers but unaware of the availability of recycling

services in the market. Some are aware of some recycling practices such as sorting of recyclables but unfamiliar with other vital practices such as separation at source and SWM planning.

- **Quality and reliability of services**: Most of the waste generators perceive the current service providers as unprofessional due to their unreliable services, unqualified staff, price fluctuations, and many other factors that resulted in converting recycling 'doers' to 'ex-doers'. On the other hand, some perceive the current recycling services available in the market as good and sufficient, especially in the hospitality sector where waste generators can comply with their policies and targets.
- **Cost of services**: The cost of adopting recycling services is perceived as expensive especially when compared to the GAM SWM fee. Moreover, the 'one offer fits all' trend that service providers are currently promoting in the market is demotivating waste generators to adopt recycling. Tailor-made offers are recommended to increase the confidence and motivation of waste generators to adopt recycling practices. Furthermore, some service providers are perceived as dishonest because they tend to increase the value of the recycling services contract after the first engagement.

Furthermore, these meetings revealed an important insight about waste generators' knowledge of their waste composition type and volume. Most waste generators lack this knowledge which hindered their ability to assess the viability of adopting recycling behaviors. Moreover, the service of waste composition analysis to quantify and qualify the generated waste has not been offered by potential service providers to waste generators. This has halted advancing into making a recycling business case. To overcome this obstacle that hinders the evaluation process, the Activity has engaged a short-term technical consultant through GreenPlans, a subcontractor on the Activity, to help evaluate the waste composition for up to four waste generators from each of the four sectors to serve as initial case studies. This data will help throughout the process of building a recycling business model for the selected waste generators from the different sectors where all the financial and non-financial benefits will be highlighted, and findings presented to both waste generators and service providers.
The service of solid waste composition analysis/auditing will eventually need to be offered by service providers as the market for recycling develops and matures. The Activity will be looking into strengthening the capacity of service providers in completing such analyses as part of their value proposition to the waste generators as part of the technical support offered under Component 1.

To capture all the needed data related to the solid waste management and recycling practices for the selected waste generators, the team created a company profile template that mirrors the introductory questionnaire template. Accordingly, the team created profiles for the waste generators met so far to document all the data collected related to their capabilities, constraints, and opportunities. These profiles will be used to estimate the size of the market available for recycling and facilitate business linkages with service providers. The developed company profile template for waste generators can be found in Annex X.

During this quarter, the team has also integrated the gathered information about the waste generation markets' needs and demands into the small and medium growing business training program discussed in section (1.1.1.) under Component I above.
This activity relates directly to building the recycling business case to be presented to waste generators described above in section a.2.2.1. The Activity will utilize the expertise of Chemonics Egypt in developing a business case for recycling in Jordan, which will be also informed by consultations that will

be completed with stakeholders as part of the development of the behavioral change communication strategy under activity 2.1.1.

2.2.2. Expand business to business linkages by presenting recycling value propositions

Assess market opportunities based on selected leads by building sales pipelines: In Q2/ FY21, the Activity built a pipeline sheet that includes the selected large waste generators with data and highlights of their current capabilities and needs, as well as their potential capacity to adopt recycling services. The pipeline of opportunities will inform the Activity's future discussions with service providers in highlighting opportunities and relevant challenges relating to different sectors and businesses and help inform the value proposition of service providers in their interaction with waste generators to ensure responsiveness to market needs and opportunities. The Pipeline Sheet Template is available under Annex XI populated with information on waste generators met with until March 31, 2021.

Support service providers to demonstrate recycling value proposition to the commercial sector: During this quarter, the Activity started an evaluation process of establishing a pilot intervention to test the business case of implementing SWM and recycling business model based on an integrated solution concept. It will also validate the feasibility of implementing bundled recycling services offered by private sector leaders to the commercial sector to eventually comply with the SWM laws and bylaws of Amman Municipality and MOENV.

The Activity will test the viability of expanding the existing SWM collection business model during Q3 and Q4 by introducing to private sector market leaders that currently offer only solid waste collection services the concept of offering recycling services as an integrated solution, whereby a set of SWM and recycling services such as waste collection, recyclables' sorting, separation at source, and recyclables' transporting will be added and bundled, to test a profitable and cost-effective model. The elements of this new business model will feed into a feasibility study, in addition to adding measures for improvement that will eventually validate a strong business case for the service providers to adopt.

The strategic rationale behind the pilot intervention is to test and demonstrate a successful showcase that highlights to service providers and waste generators the business case and feasibility of implementing integrated solutions based on bundled SWM and recycling services. This in return will increase the adoption of recycling practices among commercial waste generators.

This pilot intervention will also support the case of other interventions planned and designed for outcomes one and two; private sector recycling markets improved and expanded, and demand for and utilization of recycling services within Amman commercial sector increased.

Solve information asymmetry and create linkages between the service providers and the waste generators through proposals: During Q2/FY21, the Activity introduced measures for improvement in this pilot intervention design that will support solving the information asymmetry related to recycling and SWM practices between the service providers and waste generators. These measures, if adopted by service providers will help them improve and expand their business and technical capacities which will result in creating linkages with the commercial waste generators.

Accordingly, measures for improvement identified by the Activity are as follows:

- Pre-engagement activities are conducted by the service providers to get the buy-in of the waste generator, as well as the required inputs to prepare value propositions. The outcome of those activities will affect the technical and financial proposals.
  The pre-engagement tools can be:
  - PPT presentation that highlights the benefits of SWM and recycling practices (described under a.2.1.2)
  - Guidebook about SWM and recycling best practices and factsheets (described under a.2.1.2)
  - Site survey at the waste generator's facility to obtain the required data about the infrastructure that affects the preparation of the value proposition.
  - Solid waste composition audit to obtain data about the generated recyclables such as type, quality, and volume. This data is needed for the preparation of the value proposition.
- The service providers must run a quick exercise for a pre-feasibility and/or a business case to validate their monetary benefits as well as the commercial waste generators.
  This brief exercise will include:
  - All the services offered are listed in detail with the relevant expenditures. For example, certain tasks such as separation at source should be the responsibility of the waste generator and, if done by the service provider, then it will be a chargeable service.
  - The Capital Expenditure (CAPEX) and Operating Expenditure (OPEX) resulted out of site survey such as the infrastructure of the waste generator's facility, the labor that will conduct recycling activities, the equipment needed such as compactors and bins, etc.
  - The profit calculated from the value of the recyclables estimated after the solid waste composition audit.
  - The recyclables' profit-sharing model.
  - The cost-sharing model.
- The service providers must offer an integrated solution by bundling a set of services such as solid waste collection, separating/sorting at source, recyclables collection, SWM plan preparation, solid waste composition audit, relevant processes and procedures, reports, training, etc. An integrated solution is perceived by the waste generator as an added value offer while the service provider can get higher revenue and hence profit due to this proposition.
- Comprehensive technical and financial proposal that highlights the value proposition of adopting SWM and recycling practices. It should include all the technical data resulted from the pre-engagement activities, the financial data that must be highlighted from the pre-feasibility exercise including GAM SWM fee exemption due to recycling adoption as well as the non-monetary benefits such as the reduced environmental impact.

2.2.3. Support Commercial sector to develop, implement, and monitor SWM plans

Align with the legal framework: During the introductory meetings with commercial waste generators described above, the Activity clarified to them the importance of having a SWM plan to comply with the legal framework, as well as to facilitate the process of managing the waste generated including adoption of recycling. Most waste generators weren't aware of the relevant laws and regulations, so the Activity team shared these regulations with them accordingly. The lack of knowledge of the relevant laws and regulations relating to SWM in general and SWM plans and compliance requirements will be

incorporated into the Activity's awareness raising efforts presented in section 2.2.1. Work under this activity is closely coordinated with Component 3, below, that is addressing the legislative framework related to activating guidelines for solid waste management plans and providing a definition of what a SWM plan entails to be adopted and enforced by the Ministry of Environment.

3. COMPONENT THREE: BUSINESS ENABLING ENVIRONMENT FOR RECYCLING SERVICES AND MATERIAL MARKETS IMPROVED

3.1. National Regulatory Policy and Enforcement for SWM Strengthened

3.1.1. Support MOENV in Engaging the Private Sector for Implementation of SWM Laws and Strategies

On January 7, 2021, the Activity met with the MOENV Acting Secretary General, Dr. Mohammaed Khashashneh, and conveyed the findings of the Activity's recent studies and analyses including market systems analysis and business enabling environment assessment. Dr. Khashashneh requested the Activity's appraisal of the "non-hazardous solid waste management" bylaw, currently under development. The Activity received a copy of the draft bylaw on January 20, 2021 and responded with its assessment and recommendations on February 9, 2021. Further coordination and follow-up took place on February 24, 2021. On March 7, 2021, the Activity received an amended version of the draft "non-hazardous solid waste management" bylaw and responded with its appraisal and recommendations on March 24, 2021. The Activity has also provided MOENV, on March 24, 2021, with the Value Chain Mapping report that was produced as part of its market system analysis; so MOENV may utilize the valuable information therein.

The Activity has further presented its year one workplan to the MOENV on February 16, 2021 and attained their concurrence to the same during the meeting. The MOENV has consequently released a public announcement via their official Facebook page, https://bit.ly/3mu3ieU, on February 16, 2021, acknowledging the Activity's envisioned support to MOENV in drafting instructions for commercial waste recycling, preparing guidelines for commercial solid waste management plans, commercial waste generators' registration in the national monitoring information system for waste, and realization of the extended producer responsibility national program.

During March 2021, the Activity held successive discussions with the MOENV regarding the incorporation of private sector input into the Ministry's legislative framework. The Activity came to understand that the legal affairs unit at MOENV follows the instruction and circulars issued by the Cabinet of Ministers and the Legislation and Opinion Bureau in that regard, whereby it is mandatory to post any bill of a new legislation on the Bureau's portal - for a period of not less than ten days - to allow citizens and specialists to review and comment on the bill, accordingly. Nonetheless, on March 14, 2021, the Activity suggested to MOENV to develop an internal procedure at the legal affairs unit, whereby the MOENV may engage the private sector early on in the legislations preparation and issuance processes.

Support MOENV in preparing Regulations for Commercial Waste Recycling Best Practices

To avail the envisaged support in preparing the instructions for commercial waste recycling, the Activity is in the process of procuring the services of a qualified international senior solid waste management consultant to insure an adequate technical/knowledge transfer while maintaining local-context compatibility. The Activity interviewed three potential candidates and identified Mr. Constantinos Nicolopoulos to be the most suitable expert, agreed upon the scope of work and level of effort, and is currently finalizing the short-term consulting agreement. The Activity communicated this arrangement to MOENV on February 22, 2021 and requested the nomination of the Activity's counterparts at the Waste Management and Hazardous Substances Directorate and the Legal Affairs Unit, who will be coordinating the required technical and legal interactions accordingly. On March 9, 2021, the MOENV informed that they know Mr. Nicolopoulos very well from his work on several projects in Jordan and they welcomed him to get engaged with the Activity. The MOENV underlined the significance of Mr. Nicolopoulos' physical presence in the country at the commencement of the assignment, to introduce him to stakeholders and to discuss with him the possible ways of collaboration during the development of this scope. However, due to the prevailing COVID-19 pandemic conditions and the distressing escalating numbers of positive cases and death toll in Jordan, the Activity discussed the difficulty and explained the associated risks of proceeding with Mr. Nicolopoulos' travel plans and agreed with the MOENV to defer his travel until healthier statuses are restored. In the meantime, Mr. Nicolopoulos will work remotely and connect with the Activity team and MOENV counterparts virtually. On March 17, 2021, the Activity shared the scope of work of Mr. Nicolopoulos with MOENV and are still awaiting their consensus to schedule the kickoff meeting and commence the assignment.

Provide guidelines for commercial sector waste management plans.

Further to the MOENV consent to the Activity's year one workplan, the Activity will utilize the services of the above mentioned international senior solid waste management consultant, Mr. Constantinos Nicolopoulos, to support the MOENV in preparing guidelines for the obligatory waste management plans, including templates, for commercial waste generators. Moreover, Mr. Nicolopoulos will support in producing a qualification criterion for individuals and entities eligible to create commercial waste management plans or waste generators.

Support commercial waste generators' registration in the national monitoring information system for waste (NMISW)

The Activity held several meetings with MOENV staff to understand the history and status of the NMISW development, which its software was developed by an international private contractor. To facilitate the review and evaluation process of the system, the MOENV extended a temporary access authorization to the beta version of the system. Additionally, the MOENV invited the Activity to join the technical committee's meeting that was held at the Ministry on January 25, 2021, and hosted representatives from the relevant stakeholders; namely, the Ministry of Local Administration, Ministry of Industry, Trade, and Supply, Ministry of Health, GAM, Department of Statistics, and Aqaba Special Economic Zone Authority. The Committee concluded that the system is not ready to be launched and requires additional improvements. The Activity requested to add an attribute for waste generators to declare their waste composition or at least the fraction (%) of their recyclables. Such information will assist in providing insights on the recycling market size and sources of generation. Supplementary

improvement of the system is also sought to organize public waste generators' (institutions, universities, hospitals, etc.) registration. Consequently, the Activity met with GAM's licensing and IT departments on January 28, 2021, investigating the possibility to integrate the commercial waste generators' registration in NMISW as a pre-requisite within GAM's licensing e-procedure. The Activity followed up on February 7 and 24, 2021 with the MOENV on the progress of the IT platform improvements, in preparation for the anticipated second technical committee meeting that was scheduled on February 17, 2021 but was cancelled due to inclement weather. The Activity attended the second technical committee meeting that was held, virtually, on March 4, 2021, where the MOENV presented an updated version of the system and simulated the waste generators' registration process. By the end of meeting, all attendees were requested to individually examine the registration process and share their experiences and reflections. The Activity was granted a temporary access authorization to the updated version of the system on March 8, 2021 and carried out extensive trials to examine the various registration scenarios for potential waste generators' categories. The Activity responded with four rounds of observations and recommendations on March 9, 10, 15, and 23, 2021, respectively. The third technical committee meeting was virtually held on March 25, 2021, where the technical committee agreed on the composition of the 15-digit "Environmental ID" that will be issued to registered waste generators. The first four digits represent the year of registration, the next three digits represent the municipality code, the eighth digit is a character representing the economic activity code, and the last seven digits reflect a decentralized serial number of registered waste generators at each municipality. A fourth technical committee meeting should be arranged soon to review and discuss the registration process examination comments that are to be presented by the committee members.

3.1.2. Link Extended Producer Responsibility (EPR) to Recycling Market

Support Jordan Chamber of Industry (JCI) to establish and implement a national information system for producers.

Per a discussion held with the MOENV on January 7, 2021, it seems there still is a lack of clarity towards the realization of the newly adopted EPR concept. While it is envisaged to establish an EPR Unit at the JCI, it's not clear whether the EPR Unit will be a full-fledged Producer Responsibility Organization (PRO)/System Operator (Operational & Organizational Unit) or whether it will act as an Organizational Unit only. Furthermore, the relationship with the established EPR Association (JARCPM) remains unclear. The Activity believes that further discussion and stakeholder consultation is yet required to enhance concept maturity. Upon the Activity's request, via email dated January 19, 2021, a coordination meeting was organized by the MOENV on February 3, 2021, hosting representatives from GAM, JCI, and MOENV's partners in development of an EPR System for Packaging Materials in Jordan; GIZ supported by M/s. Cyclos & Dr. Mustafa Al-Jaar. Consequently, a short project description and the first draft of the work schedule was produced and circulated by M/s. Cyclos on February 18, 2021 listing the individual tasks and anticipated cooperation. The Activity is currently reviewing the work schedule and engaging in discussions with Chemonics Egypt to identify how it can best complement the planned efforts by the MOENV, JCI, GIZ and Cyclos in that regard. MOENV has verbally brought to the attention of the Activity that JCI is uncertain about hosting the anticipated EPR Unit as they are re-evaluating their capacity to run and manage it. On March 22, 2021, the Activity met once-again with Dr. Khashashneh who confirmed MOENV's determination to proceed with the EPR concept realization whereby an EPR UNIT is to be established -whether at JCI or otherwise- to act as the regulator and administrator of the EPR implementation while the actual operations will be managed by a designated

PRO. Furthermore, the MOENV expressed no objection to having the EPR Unit assume the role of the PRO at the initial phase of operationalization.

Concurrently, Dr. Khashashneh expressed interest in engaging the Activity's expertise in the development of the EPR legislative framework and has shared the "draft EPR Instructions for Packaging Material" on January 20, 2021 for the Activity's detailed review and evaluation. In response, the Activity conveyed its assessment and recommendations on February 9, 2021. Further coordination and follow-up took place on February 24, and March 3, 2021. MOENV has shared an amended version of the "draft EPR Instructions for Packaging Material" on March 24, 2021 for the Activity's review and evaluation.

3.1.3 Promote Domestic Recycling Sector through Tax and Trade Incentives

To avail the envisaged support in promoting the domestic recycling sector through tax and trade incentives, the Activity is in the process of procuring the services of a qualified local tax and financial consultant to assess the current situation related to exporting and importing of recyclable material and end products and provide recommendations, ensuring fair competition and pricing. The Activity has identified Mr. Mohammad Rajaby to be the most suitable expert to assume this role. The Activity has interviewed Mr. Rajaby on March 22, 2021 and shared a draft scope of work for his assignment. Discussions are currently underway to agree on the required level of effort and finalize the contractual arrangements.

3.2. GAM Engagement with the Private Sector Recyclers and Waste Generators Improved

3.2.1 Review license fees and standardize process for registering recycling companies

In January, the Activity held several meetings with GAM, including a meeting with the Deputy City Manager, on January 28, 2021 and conveyed the findings of the Activity's recent studies and analyses including the market systems analysis and business enabling environment assessment. The Activity has further requested a meeting with the City Manager to present its year one workplan to gain GAM's concurrence, capture their interests, and align expectations and priorities. The meeting could not be scheduled during February due to the lack the City Manager's availability; nonetheless, it was anticipated that the meeting will be arranged during the first week of March. Moreover, the Activity has requested via communication dated March 16, 2021, a meeting with the Mayor of Greater Amman Municipality, Dr. Yousef Shawarbeh. Nonetheless, neither of the meetings have been scheduled to date.

In preparation for the envisioned support to GAM, the Activity is seeking the facilitation support of a local legal expert and has nominated the former Director of GAM Legal Affairs, Ms. Samar Al-Hiyari, to assume that role. The Activity interviewed Ms. Al-Hiyari on February 23, 2021 and compiled a draft scope of work for her assignment. On March 7, 2021, the Activity received Ms. Al-Hiyari's affirmative response on her availability to join the Activity and deliver the envisioned scope of work. The contractual arrangement with Ms. Al-Hiyari will be finalized following the anticipated meeting with GAM officials.

Work with GAM to streamline licensing & registration process with official counterparts.

On January 28, 2021, the Activity met with GAM's Health Affairs Director and GAM's Professional Licensing Department Manager. The Activity learned that GAM is awaiting the parliament's decision on a bill for a new Licensing Law. Once passed, GAM will endeavor to issue the relevant Licensing Bylaw, which will determine the updated license-fee schedule. The Activity has officially requested a copy of the bill, on February 21, 2021 to review the proposed changes -relevant to the applicable Vocational Licenses Law No. 20 of 1985- and evaluate possible implications on the planned activities. On March 18, 2021, the Activity received a copy of the bill for GAM's new Licensing Law, and learned that once this new bill is passed, the current Vocational Licenses Law No. 20 of 1985 will be annulled and a new bylaw will have to be issued to indicate the professions that may be practiced in each of the regions and to define the applicable license issuance/renewal fees.

In parallel, GAM is taking part in a committee led by the Ministry of Industry, Trade, and Supply to develop a national guide for classification of economic activities (Jordan Standard Industrial Classification - JORSIC). The Activity aims to participate in the next committee meeting, if possible, to facilitate expanding the classification to include recycling activities along the value chain. The Activity recommended the contribution of the MOENV in the development of the new guide and will support the possible integration of the same within MOENV's relevant procedures. To this end, the Activity has compiled and shared with the MOENV on February 4, 2021 points that need to be discussed with the Ministry of Industry and Trade with regards to the approaches relevant to the occupational classifications, titles and their codes, which will best serve the application of the new regulations (coding and registration system) and the organization of the waste relevant investments and industries. In March 2021, the Activity continued discussions with the MOENV regarding the application of the national classification guide (JORSIC), and received MOENV confirmation, on March 20, 2021, that Ministry of Industry, Trade, and Supply (MOITS) would welcome and accept amending the national classification guide, if need be, provided that the MOENV raises an official request of the same, appending all required changes and justifications.

On March 18, 2021, the Activity received a copy of the JORSIC guide from GAM; however, another version of the JORSIC Guide was received from the MOENV on March 21, 2021. Both documents should be identical, yet they are not. The Activity has communicated this matter to the MOENV on March 23, 2021 and is awaiting their feedback prior to proceeding with the review process.

3.2.2 Provide legal recognition to certified waste pickers.

Explore ways to integrate waste pickers within the recycling value chain.

During February, multiple discussions took place in collaboration with the Recycling Sector Lead, the Gender and Social Inclusion Specialist, GreenPlans, and Chemonics Egypt to clearly define the planned activities for this intervention area. Targeted informal waste pickers segments and key actors along the recycling value chain were identified as potential integration agents.

The Activity met with the Ministry of Local Administration (MOLA) Acting Secretary General, Eng. Hussain Mhaidat, on February 28, 2021. Mr. Mhaidat deliberated on MOLA's previous experience in attempting to provide legal recognition to informal waste pickers through establishing a community-based association. However, Mr. Mhaidat informed the Activity that MOLA's efforts were deemed unsuccessful, thus far.

During March 2021, the Activity continued internal discussions to design and integrate the intervention areas. Such interventions will be complementary to the training and certification activities currently under development and delivery by Component 1.

3.2.3 Review and standardize GAM's waste collection fees to commercial sector.

Work with GAM to amend instructions for estimating commercial waste volumes and fees.

On January 13, 2021, The Activity met with GAM's Directorate of Environment and Solid Waste Management, and it was understood that tipping fees, charged at the gate of the landfill, are greater for the private transporters in comparison to waste generators employing GAM's fleet. The Activity also met with the Landfills Manager, on January 31, 2021, and found that GAM charges higher fees to private transporters when delivering the waste to the transfer station in comparison to when delivering to the landfill. Private transporters are being driven to haul for longer distance to reach Al-Ghabawi to avoid paying higher fees at the transfer station. The Activity has requested, as of January 19, 2021, details on the transportation and disposal fees charged to GAM's fleet vs private waste operators; however, such information hasn't been made available to date.

The Activity met, on January 27, 2021, GAM's E-Tracking System Manager who elaborated that although GAM's SWM cost recovery is currently low (around 40%), this might not be entirely due to the undervalued fee structure but could largely be due to GAM's operational inefficiencies and over-resources manpower. Accordingly, any increases to the SWM fees must be carefully considered, as it will most probably not be accepted by the majority of the population/generators. The Activity has requested, on January 19, 2021, GAM's waste management cost studies along with records on waste fees paid by the commercial sector for the previous years; however, this data has not been made available to date.

Furthermore, the Activity met with GAM's Legal Affairs Department, on January 27, 2021 and learned that the Parliament is currently reviewing a couple of bills including a new Municipalities Law and new GAM Law that will give GAM the ability to operate more freely, once passed. The Activity has officially requested a copy of the bill, on February 21, 2021. Any proposed changes to existing legislations or drafting of new ones will have to go through GAM 's Council, then the Cabinet for approvals before it is published at the Official Gazette. Stakeholders' consultations and financial impact analysis are deemed pre-requisites to any legislation improvement process before it is presented to the council. The approval process may take up to 6 months.

4. REPORTING DATA AND DEVRESULTS

No data to report on within this quarter.

5. IMPLEMENTATION CHALLENGES AND MODIFICATIONS MADE/ISSUES ADDRESSED FROM LAST QUARTERLY REPORT

Due to the COVID-19 pandemic, the main challenge the Activity faced during the second quarter is conducting face-to-face introductory meetings with key counterparts and stakeholders such as commercial waste generators and service providers. The Activity changed the approach to conducting physical meetings where possible, and remote meetings via various online tools and phone calls which helped to overcome this challenge.

6. COLLABORATING AND/OR KNOWLEDGE SHARING

Collaborating and coordination with the private sector form the core of the Activity's design. Activity leadership and technical specialists is working to identify opportunities for collaboration throughout the program cycle, for example in this quarter the Activity introduced a participatory methodology with stakeholders to develop a BCC strategy that aim at increasing awareness of recycling and changing waste generators behaviors towards adaptation of private recycling services. Moreover, the establishment of a waste pickers training and certification program cannot occur without legal recognition of the program by GAM. At the same time, establishment of the program is not possible without scale-up support provided by environmental training NGOs and demand for trained labor by existing aggregating or processing businesses, which would formally hire or contract waste pickers and officially integrate them into their supply chain. To have all these pieces of the puzzle in place, it is necessary for each of these stakeholders to recognize their respective interests and positions, gaining trust in one other, and working jointly with the Activity to develop viable solutions.

Thus, the Recycling in Jordan Activity during this quarter initiated and supported constructive dialogue with the government and regulatory bodies through regularly held meetings. These meeting aimed at assessing progress to date, identify constraints, and discuss ways to collaboratively apply lessons learned going forward. For example, while the newly adopted EPR principle is consider an advanced concept of waste management systems, it required collaboration and knowledge sharing with other Donor Agency, namely GIZ and their implementing partners, who are leading with MOEN. Accordingly, the Activity participated in several coordination meetings; to share insights and exchange deliberations on how to realize the EPR program and to establish the approach on how the Activity can complement concurrent efforts. The Activity has also attended a webinar that GIZ hosted to share the experience of Spain in implementation of EPR and participated in GIZ's workshop for a pilot cooperation project for fostering the recovery and recycling of packaging materials in Jordan. The focus of the workshop was to investigate the voluntary initiative from Nestle, Pepsico, Diageo and GIZ to start a pilot project on: "Bottle Recovery and Recycling in Jordan".

7. ASSESSMENTS / EVALUATIONS / LESSONS ASSESSMENTS / EVALUATIONS / LESSONS LEARNED

7.1 List Major Assessments / Internal Evaluations and Lessons Learned

- Through the series of meetings conducted with commercial waste generators, the Activity identified numerous market findings related to recycling and SWM practices and documented them in a comprehensive report. This report sheds light on the main constraints, opportunities and triggers that affect the adoption of SWM and recycling practices among commercial waste generators. It also describes the current business models available in the market between service providers and waste generators in addition to the current perceptions of waste generators with regards to the offered recycling services. Refer to Annex XIV for the Commercial Sector Findings Report.

- The Activity team found it is not easy to convince potential local partners/training service providers to adapt and maintain market-led services through a market systems approach. Rather, they are perceiving USAID funded projects as grant driven interventions. Yet, the Activity team is still making efforts to educate and reach a better understanding with the targeted local training service providers.

- Baseline Study: In Q2/FY21, the Activity conducted a baseline study to provide direction for baseline and target values for performance indicators to quantify the Activity's impact and identify areas for improvement, further learning, and adaption. The study included over 500 formal and informal entities of waste generators and recycling service providers. And a stratified sampling approach was used to survey waste generators. Some strata are of greater importance to the Recycling in Jordan Activity, so the Activity increased their sample size to increase representativeness and statistical power. On the contrary, two methods were used to sample the recycling sector population: stratified sampling and snowball sampling. The baseline study informed the following indicators that we articulated findings accordingly:

INDICATOR:2.1: NUMBER OF COMMERCIAL WASTE GENERATORS USING RECYCLING SERVICES IN GREATER AMMAN AS RESULT OF THE ACTIVITY: 135 out of 264 (51 percent) of waste generators surveyed currently use recycling services. Recycling service adoption is highest among the largest waste generators, with 73 percent of large and 59 percent of medium-large waste generators recycling, while all other categories are less than half. There is significant variation among sectors with food markets/grocery stores and industrial/manufacturing among the highest.

INDICATOR:1.A: INCREASE IN VOLUME OF MATERIALS DIVERTED FROM THE LANDFILL BY PRIVATE SECTOR RECYCLING: Of the 225.5 tons/day generated by the 264 waste generators that participated in the survey, a total of 70.7 tons/day is diverted from the landfill into the recycling market, for an average recycling rate of 31.4 percent. It is expected that the overall recycling rate for the commercial sector would be lower than the recycling rate of large waste generators. Large waste generators tend to recycle at higher rates because their waste is more valuable, homogenous, less contaminated, and easier to collect in large volumes than that of smaller businesses. Even among the large waste generators in the survey sample, there was a slight positive correlation between recycling rates and waste generation.

Disaggregating the commercial sector data into sub-sectors and by material type reveals significant variations. Paper and cardboard are by far the largest material type that is diverted from the commercial waste stream, comprising 63 percent of all waste diverted, primarily from food markets, schools, retail, and industrial sectors. Other materials are recovered in much lower quantities, which can be explained in most cases by the lack of local recycling markets for those materials.

INDICATOR:2.1.1: PERCENTAGE OF COMMERCIAL WASTE GENERATORS EXPRESSING INCREASED INTEREST IN RECYCLING: Of the 129 waste generators that do not currently recycle, 38 percent (49) are aware of recycling services and 50 percent (64) are interested. It is intriguing that more are interested than are aware, which implies that some are quite open-minded to the possibility of recycling, even without adequate information. The relationship between awareness and interest, and the types and methods of messaging are discussed further below.

By sector, levels of awareness and interest of recycling services vary. Many of those who were not aware could not say whether they were interested or not, since they do not have enough information, suggesting that they could become interested if provided the right information.

Of those who are aware, 92 percent expressed interest in recycling services. These waste generators would likely be receptive to receiving more information about recycling services and have a higher likelihood of adopting. When asked what hinders you from adopting recycling services, this subgroup most commonly said simply "I don't know what to do" (49 percent), followed by the perceived cost of recycling equipment (33 percent) and relatedly, lack of financial resources (24 percent). Despite being aware of recycling services, this group appears to require some more

practical information about how to adopt recycling services and the financial case for doing so, as discussed in Section 4.7. Messaging should focus on dispelling/overcoming commonly cited barriers, namely the perceived costs of recycling, as well as promoting positive messages. 82 percent said that recycling is consistent with their company's ethical and sustainability values; 78 percent said that being efficient with waste and recycling gives businesses a competitive edge. In open responses, it appears that many of these respondents expect recycling service providers to contact them.

For the 62 percent (80) of waste generators who are not aware of recycling services, the most obvious intervention is to provide them with additional information. On the whole, this group appears to view recycling with more skepticism than those that are aware, although 19 of them expressed interest in recycling services despite not having much information.

Consistent with lower levels of awareness, their high levels of uncertainty regarding the specific advantages and challenges of recycling services. This suggests that there is a good opportunity to educate these waste generators with targeted information. While the messages that are most likely to resonate with this group are the same as those that are already aware of recycling services. 51 percent of waste generators in this group would be interested in reducing their impact on the environment through recycling, and 34 percent would be interested in saving money on waste collection. The Activity will finalize the baseline report and provide more detailed and comprehensive findings in Q3/FY21.

7.2 Actions and Way Forward

Nothing to report in this quarter.

8. PLANNED ACTIVITIES FOR NEXT QUARTER

8.1 Proposed Tasks and Activities for the Next Quarter

Activity	Purpose	Date	Time	Participants
Behavior Change Communication Strategy development workshop	To inform the design of the behavior change communication strategy	April 19th & April 20th, 2021	10:00 AM-2:00PM Intercontinental Hotel- Amman	List available in Annex XIII
Solid waste composition analysis activity with selected waste generators	To overcome the obstacle that hinders the evaluation process of recycling potential among waste generators across different sectors. This brief activity will determine the solid waste composition that is generated from the commercial business, both in terms of quantity, type, and volume. The results of the analysis will provide important information to about the types and amounts of the materials in the waste streams, and the amounts that can be recycled.	April 11 – April 30, 2021	Carrefour/ City Mall. Others TBD	USAID Recycling in Jordan Activity/Green Plans STTA/ Carrefour City Mall
Delivery of Small and Growing Businesses	To equip service providers with business skills and modeling as needed to improve understanding of the market and enhance value	May 2021 – August 2021	3-5 hours /session	15-20 companies

Training Program	proposition, hence improving their ability to promote their services more effectively.			
Technical Assistance for the Assessment of Tadweer dirty MRF Facility in Al-Ghabawi	To assess the current situation in terms of technical, operational, financial, and contractual considerations, and to come up with recommendations on potential areas of intervention and ideas on how Tadweer can improve their current operations.	TBD- Q3	TBD	TBD
Delivery of Waste Picker Training Modules and Materials	To increase capacity and willingness to integrate waste pickers into formal waste collection and recycling supply chain.	TBD- Q3	TBD	TBD

9. BRANDING COMMUNICATIONS AND DISSEMINATION

9.1 Key Communication Activities - Specific Activities That Reflect Branding Awareness for USAID

Refer to Annex XV for Media Coverage during this quarter.

9.2 Branding

In Q2/FY21, the Activity had a meeting with the Activity's Contracting Officer's Representative and USAID's Senior Development Outreach and Communication (DOC) Specialist where the two parties discussed topics related to internal and external branding. The DOC specialist presented guidelines for branding of administrative materials including business cards and letterheads, where the Activity amended and cleared from DOC. Moreover, during this quarter, the Activity made sure that all programmatic materials are reflecting USAID branding and visibility. example of branded materials in this quarter included marking and branding of all training materials of small and growing business training program (presented under section 1.1.1 above).

10. SUSTAINABILITY AND EXIT STRATEGY

The Activity is very conscious of the need to consider and build sustainability as part of every intervention design the Activity is undertaking. Sustainability is a fundamental principle in the Market Systems Development Approach. The question of Who does and Who pays, referring to who in a properly functioning market system should be providing this service or task, and who should be paying for this task or service is fundamentally a sustainability question. The Activity looks at the sustainability question at the beginning of designing the intervention and considers sustainability options and measures accordingly. For example, in looking on how we assist waste generators develop solid waste management plans, a new requirement by law, and in our effort to provide a market-based solution, we consider options of who could be providing this service to the waste generators on a commercial basis (rather than the Activity providing this service directly). We then consider the different options and aid that will enable these potential providers to offer the service on a commercial basis.

The Activity follows this line of thinking throughout the intervention design and implementation to ensure sustainability of those interventions beyond the life of the Activity.

11. ANNEXES

Annex I Indicator Performance Tracking Table

Performance Tacking Table is not applicable in this quarter.

Annex II Geographic Data Reporting – GIS Template

Nothing to report in this quarter.

Annex III Success Stories

An Overview of the Roles and Status of Women and Men in the Recycling Sector

In Greater Amman and across Jordan, the most marginalized men and women work in the informal recycling sector, though women participate in significantly fewer numbers. They often work with family members, picking, collecting, and sorting waste – from hazardous construction waste to medical waste and organic waste. In doing so, they fill a critical function both in the recycling value chain and in municipal solid waste management service delivery.

As part of the USAID Recycling in Jordan Activity's market system development approach, and in line with the USAID Gender Equality and Female Empowerment Policy (2012) and USAID/Jordan CDCS (2020-2025) Development Objective 5, the Activity conducted a gender analysis across the recycling value chain in Amman, Jordan. The Analysis identified and assessed inequalities, constraints, and opportunities across the recycling value chain, with a focus on the informal sector including women, youth, and disadvantaged groups.

"Wafa'a is a thirty-year old Jordanian mother of five who lives with her extended family in a Dom community near Amman. The beloved mother starts her day before the break of the dawn. "My sister and I woke up at 5:00 AM we feed the kids and then go to collect waste from the neighborhood areas". Wafa'a and her sister usually collect bread, plastic, iron, or any other materials they could find, they use carts and donkeys to carry the waste and bring it back to their residential area near their tent. After we collect bread, we spread and dry it then we put it in big sacks to be sold. When we have good amounts of recyclables, we sort the items, then our husbands and sons take them over the pickup to the middlemen and sell what we have".

Based on an in-depth literature review of more than 50 sources and 33 Key Informant Interviews, the gender analysis provided novel overview of the roles and status of women and men in the recycling sector in Amman, Jordan, and identified gender disparities therein. The analysis estimates a minimum of 3,000 and a maximum of 5,000 men work as informal waste pickers in Greater Amman, with only 100 to 200 female waste pickers. In total, women are almost entirely absent from this level of the value chain. Informal waste pickers can be divided into two groups: those employed as municipal streets sweepers and those who operate independently as itinerant waste collectors. A situation that is with no difference at the formal sector side, the women are relatively absent at all levels of the formal recycling value chain – as employees, managers, technical experts, business owners, and board members. The analysis estimates that women comprise less than three percent of employees working in private sector recycling enterprises in Greater Amman.

To make progress on gender equality and social inclusion within the recycling sector, the USAID Recycling in Jordan Activity will work to integrate the gender equality and social inclusion approach in the interventions that could enhance the performance of women, youth, people with disabilities and disadvantaged groups across the recycling value chains; support the creation of organizations for waste sector workers with women in leadership positions that also provide training, technical assistance, and organizational strengthening; and improve conditions and opportunities for women, people with disabilities and all employees within recycling companies. Designed interventions will address gender-based violence, women's workload, and promote positive masculinity.

The full gender analysis report will be available soon on the KaMP.

Annex IV Training Report

Nothing to report in this quarter.

Annex V Pictures (events, trainings etc.)

None during this quarter.

Annex VI Integration of Crosscutting Issues

(a) Gender Equality and Female Empowerment, Youth, and Disability

During the second quarter, the GESI Team interviewed male and female informal workers and waste pickers in January 2021 as a follow up to the Gender Analysis and Market System Analysis conducted in the Year 1 Quarter 1. The Activity interviewed 44 informal male and female waste pickers through conducting four focus group discussions. The interviews' purpose was to fill any qualitative and quantitative gaps that occurred while developing the Gender Analysis and the Market System Analysis. The analysis of these interviews has confirmed the consistency of the Gender Analysis and MSA's findings.

In the context of integrating gender and social inclusion into the Activity's main components, the Gender and Social Inclusion Specialist participated with the technical team in conducting peer-to-peer business meetings with two business categories: (a) recycling service providers, and (b) supporting business services providers. Furthermore, the Gender and Social Inclusion Specialist has been part of the communications that took place with Chemonics Egypt. This collaboration transferred their knowledge of the Small and Growing Business Training Program and the informal waste pickers certification program to adapt and customize them to the Jordan context and to ensure gender and social inclusion integration in the developed training materials that will be delivered to the recycling service providers.

The Activity has ensured that a dedicated session about gender and social inclusion will be conducted during the training sessions for the recycling service providers. The Activity team has requested the sub-contractor to develop a specific business case in the sector for gender equality and social inclusion to serve as a "guiding light" to better business outcomes such as increased profitability and organizational performance.

In addition, the gender and social inclusion dimension has been integrated into the MEL plan where two specified indicators were developed from a gender and social inclusion perspective. These two indicators' definitions and PIRS have been developed to measure the Activity's impact during the life of project from a gender perspective.

The Activity developed the Gender Equality and Social Inclusion Strategy and Action Plan during February through extensive collaboration and coordination with the Activity's technical leads. This internal document is considered a road map for the Activity to demonstrate the key steps to integrate GESI considerations throughout the life of project.

In March, the Gender and Social Inclusion Specialist developed training material for two GESI training sessions for Activity staff. The training sessions that will be delivered in early April aim to build the staff's capacity on the gender and social inclusion approach and reinforce their roles and responsibilities related to gender and social inclusion integration, as it is cross-cutting across all components.

(b) Environmental Compliance

As part of the Special Activity Fund (SAF manual design, the Activity included key environmental compliance considerations for activities design and implementation follow up. The considerations included were aligned with the activity EMMP. According to the Activity EMMP Some SAF activities may require preparation and implementation of an activity specific environmental screening to ensure that these activities do not have negative environmental impacts. These activities will be screened on a case by case basis.

Annex VII Management and Administrative Issues

(a) Constraints and Critical Issues

Nothing to report on within this quarter.

(b) Personnel

During Q2/ FY21, the USAID Recycling in Jordan Activity has completed the recruitment process for its team: the second driver for the project has been hired in February and finalized the process of recruiting the second Recycling Commercial Specialist under component 2 who started the job on April 1st .

(c) Adaptation of the Activity

Nothing to report on within this quarter.

(d) Modifications and Amendments

No modifications happened during this quarter.

Annex VIII Calendar of Planned Outreach and Communication Events for Next Quarter

There are no planned outreach and communication events in Q3/FY21.

Annex IX Waste Generators Introductory Questionnaire

Date:
Introductory Meeting with WG:
WG Attendants:
RJA Attendants:

Commercial sector recycling capability & readiness

Brief about WG:

Recycling Adoption Internal factors:

1- Recycling practices? engagement form/contract?
2- SW and environmental corporate policies/SOPs/targets?
3- Recycling dedicated labor?
4- Man-power profiles/knowledge & awareness?
5- Decision-making processes?
6- Physical infrastructure/space?
7- Recycling equipment/transport fleet?
8- Separation at source/sorting (within the premises) capabilities?
9- SWM financial capability/SWM budget?
10- Current waste expenditure?
11- GAM/SPs service level of satisfaction – quality, reliability, cost?

Recycling Adoption External factors:

1- Knowledge of the related governmental laws and regulations that enforce SWM and recycling behavior?
2- Knowledge of the government financial incentives? Penalties?
3- Knowledge and awareness of the services/SPs available?
4- The availability and quality of recycling services?
5- The monetary compensation related to implementing recycling practices?
6- Availability of external advisory/consulting support firms in SWM?
7- Social norms/cultural trends and influences?
8- The image-recognition?

Conclusion/Wrap-up questions

- What is the main incentive to recycle? trigger to adopt?
- What support you need to adopt or improve recycling practices? business/technical/information?
- Other suggestions?

Annex X Waste Generators Company Profiles Template

WG Name:		**Sector:**	**Waste Size:**
Recycling Practices: Non-Doer/Doer/Partial-Doer/Ex-Doer		**Waste Collection by SP: Non-Doer/Doer/Ex-Doer**	
Contact Person:	**Title:**	**Phone:**	**Email:**
Awareness & Knowledge Related to Recycling			
Recycling & SWM Concept: YES/NO	**Recycling Services: YES/NO**	**Recycling SPs: YES/NO**	**Recyclables Value: YES/NO**
Gov. Laws: YES/NO	**Gov. Exemption: YES/NO**	**SWM Plan: YES/NO**	**SWM Advisory Firm: YES/NO**
Notes:			
Current SWM & Recycling Practices			
Waste Collection: GAM/SP	**SP Name:**	**Service Fee:**	**Waste Size:**
Service Level of Satisfaction	**Quality: YES/NO**	**Reliability: YES/NO**	**Cost: YES/NO**
Recycling Practice: YES/NO	**SP Name:**	**Service Fee:**	**Agreement: Formal/Informal**
	Recyclable Waste Size:	**SAS: YES/NO**	**Sorting at Source: YES/NO**
Service Level of Satisfaction	**Quality: YES/NO**	**Reliability: YES/NO**	**Cost: YES/NO**
Waste Composition: YES/NO	**Recyclable Types:**		
	Recyclables Size:		
Notes:			
Capabilities to Adopt Recycling			
Available Environment Policy/SOPs: YES/NO	**Available SWM Plan/Guidelines: YES/NO**	**Man-Power Knowledge & Awareness: YES/NO**	**Decision-Making: Simple/Complex**
Recycling Equipment: YES/NO	**Infrastructure: YES/NO**	**Space: YES/NO**	**Transport Fleet: YES/NO**
SWM Budget: YES/NO	**Dedicated Labor: YES/NO**	**SAS: YES/NO**	**Sorting at Source: YES/NO**
Notes:			
Needs to Adopt Recycling			
Business Support: YES/NO	**Technical Support: YES/NO**	**Awareness: YES/NO**	**Training: YES/NO**
Notes:			
Triggers to Adopt Recycling			
Image-Recognition: YES/NO	**Social Influence: YES/NO**	**Corporate Target: YES/NO**	**Environment Policy: YES/NO**
Financial: Breakeven/On Budget			
Notes:			
Recommendation and Next Steps			

Annex XI Pipeline Sheet Template

Pipeline information for waste generators met until March 31, 2021.

Annex XII List of Service Providers Met in Q2/FY21

#	Service Provider	Type of Service	Meeting date & Time	Interest (Yes/No) First Training Cohort
1.	[redacted]	Paper, Plastics, Cardboard, Metals	February 9, 2021 @ 10:00	Yes
2.		Paper, Plastics, Cardboard, Metals, Mixed waste	January 31, 2021 @ 11:30	Yes
3.		Paper, Plastics, Cardboard, Metals	Wrong Contact person and number	NA
4.		Paper & Cardboards	January 25, 2021 @ 13:00	Yes
5.		Paper & Cardboards	Not interested	No
6.		Paper, Plastics, Cardboard, Metal, Mixed Waste	February 1@ 12:30-1:30	No
7.		Paper	January 28, 2021 @ 15:00	Yes
8.		Organic	February 15, 2021 @ 10:00	Yes
9.		Paper, Plastics, Cardboard, Metals	February 1, 2021 @ 14:30	Yes

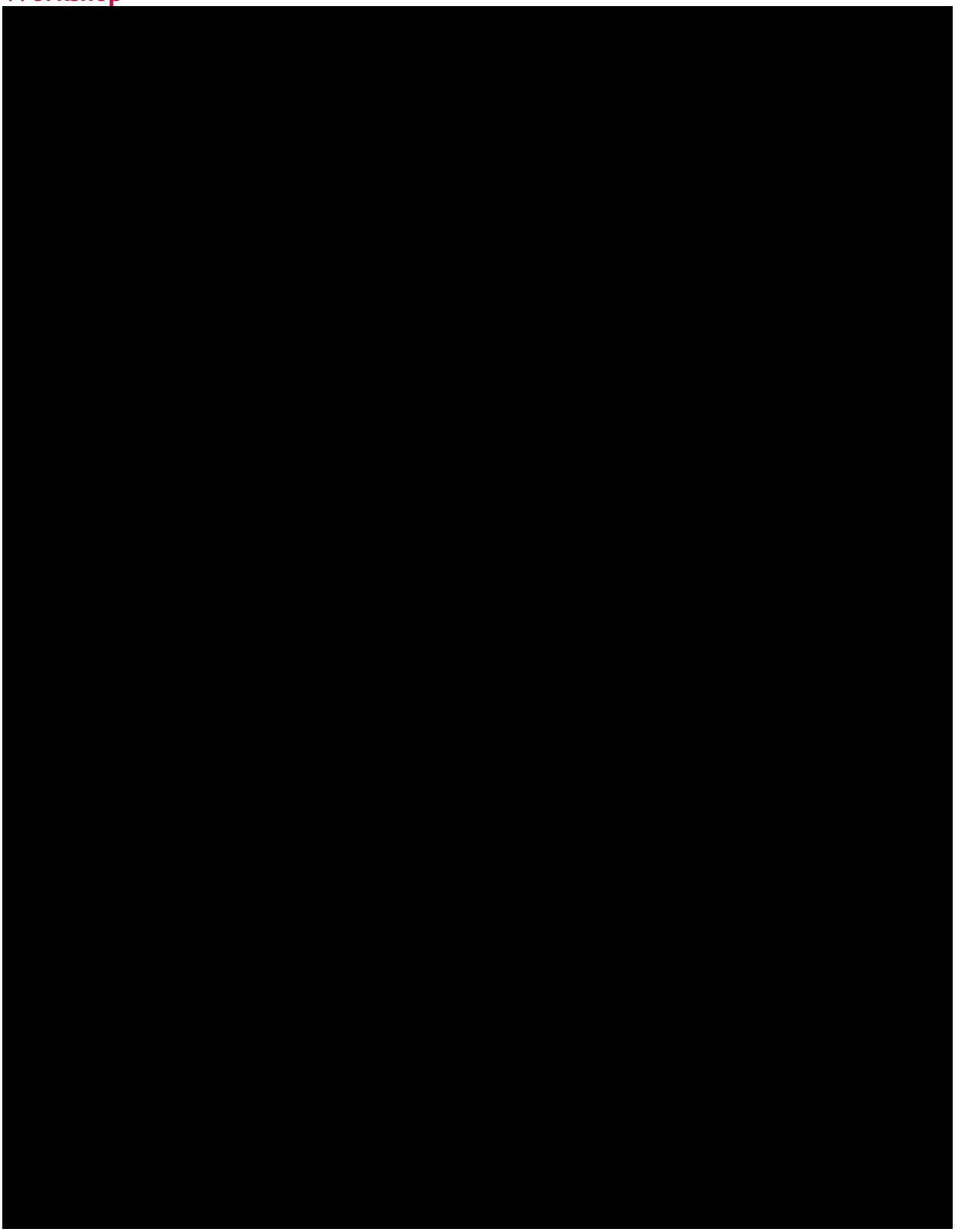
#	Service Provider	Type of Service	Meeting date & Time	Interest (Yes/No) First Training Cohort
10.	[redacted]	Paper, Plastics, Cardboard, Metals	Feb 10, 2021 @ 12:00	Yes
11.		MSW	February 4, 2021 @ 9:00	Yes
12.		MSW	January 31, 2021 @ 13:30	Yes
13.		MSW	Feb 2, 4, 7, and 8, 2021 call trials. No reply	NA
14.		MSW	1st try with Mr. Saad on 21/2/2021, he suggested to call him back on 22/2/2021 No reply	NA
15.		MSW	Meeting was assigned on February 8, 2021 @ 14:00. They did didn't show up. February 21, 2021: Called them to assign a meeting, they will revert back They did not respond..	NA
16.		MSW	February 7, 2021 @ 11:00	Yes
17.		MSW	Feb. 21, 2021: 3rd try with Eng. AlKiswani, he proposed to call him back on 28/2/2021 Contact person resigned. Theycould not be reached.	NA

#	Service Provider	Type of Service	Meeting date & Time	Interest (Yes/No) First Training Cohort
18.	[redacted]	MSW	February 7, 2021 @ 13:00	No
19.		MSW	February 4, 2021 @ 13:00	No
20.		E-waste	February 28, 2021 @ 12:30	Yes
21.		E-waste	January 26, 2021 @ 11:30	Yes
22.		MSW	February 23, 2021 @ 11:30	Yes
23.		MSW	Not interested.	NA
24.		MSW		
25.		MSW		
26.		MSW		
27.		Paper & Cardboards	A meeting was agreed on Tuesday, March 16, 2021, however, company's representative did not show up and stopped responding to phone calls.	
28.		Paper & Cardboards		

#	Service Provider	Type of Service	Meeting date & Time	Interest (Yes/No) First Training Cohort
29.	[redacted]	Paper & Cardboards		
30.		Paper & Cardboards		
31.		Paper & Cardboards		
32.		Paper, Plastics, Cardboard, Metals	February 9, 2021 @ 12:00	Yes
33.		Metals	February 23, 2021 @ 10:00	Yes
34.		Paper, Plastics, Cardboard, Metals	February 16, 2021 @ 14:00	Yes
35.		MSW	Stopped operations since Sept 2020. failed to schedule the meeting	NA
36.		MSW	Disconnected number. (not in service)	NA
37.		MSW	Disconnected number. (not in service)	NA
38.		MSW	Wrong Contact person and number	NA
39.		Paper & Cardboards	Invalid Number/ Alternative number is not available	
40.		E-waste	Disconnected number. (not in service)	NA

#	Service Provider	Type of Service	Meeting date & Time	Interest (Yes/No) First Training Cohort
41.	[redacted]	Paper & Cardboards	Monday, March 15, 2021 @ 11:00	Yes

Annex XIII Suggested Participation List for the BCC Strategy Development Workshop



Annex XIV Commercial Sector Findings Report

This report describes the market findings related to SWM and recycling business the Activity identified so far in Amman commercial sector.

It also sheds light on the main constraints, opportunities and triggers that affect the adoption of SWM and recycling practices among commercial waste generators.

Constraints and Opportunities at WGs

The factors listed below represent constraints and/or opportunities for the adoption of recycling practices depending on whether they are present among waste generators' capabilities and policies.

1. Awareness of the governmental laws and bylaws that enforce SWM and recycling behavior including the government financial incentives related to complying with these laws.

The majority of the commercial waste generators lack awareness of the laws especially the 'non-doers'.

2. Awareness of recycling practices and its monetary and non-monetary benefits.

The majority of the commercial waste generators are aware of recycling practices and their environmental benefits but lack awareness of the recyclables' monetary value.

3. Awareness of the availability of recycling services as well as recycling service providers.

The majority of the commercial waste generators lack awareness of both services and service providers especially the 'non-doers.'

4. SW and environmental corporate policies and targets.

Such policies and targets are an integral part of SOPs and KPIs in multi-national corporations and chains such as hotels.

5. Recycling dedicated labor.

Corporations don't dedicate labor to carry-out recycling practices such as separation at source or sorting. Nevertheless, some corporations such as hotels utilize their staff to assist the contracted service providers in sorting.

6. Decision-making process to adopt recycling practices.

Such processes vary between corporations depending on the availability of environmental policies, SWM targets, and KPIs in addition to the SWM budget among other factors that make the adoption of recycling practices simple and straightforward.

7. Recycling equipment and physical infrastructure such as space.

The majority of waste generators in the sectors of hotels, malls, and hypermarkets have no recycling equipment except for waste bins placed in dedicated space such as waste rooms. Moreover, their infrastructures allow access and comply with the vehicles of the service providers.

However, in the restaurant sector, most waste generators don't have the infrastructure or the equipment that caters to recycling practices. They utilize the public bins offered by Amman municipality to drop off their waste.

8. Recyclables' separation at source/sorting capabilities.

Due to environmental policies and SOPs, the hospitality sector's staff is oriented about SWM practices including the concept of separation at source as well as sorting of recyclables, while such concepts are new to the majority of sectors. Nevertheless, it is found that most waste generators who are 'doers' adopt sorting at source as an offered service mainly because this is a market trend influenced by service providers.

Separation at source practice along with its benefits must be better promoted and presented in the market since it is a vital tool to recover recyclables with better quality hence better value.

9. External SWM advisory/consulting firms.

There are no SWM advisory/consulting firms currently in the market. Some waste generators depend on the SW and environmental guidelines dictated among their policies and SOPs.

Triggers to Adopt.

Commercial waste generators have different triggers and motives to adopt SWM and recycling practices summarized as follows:

- Comply with environmental policies.
- Achieve corporate targets.
- Reach image-recognition.
- Attain to social influences and pressure.
- Comply with SWM set budget.

Perception of Recycling Services/Service Providers

The waste generators' perceptions of the current recycling services and service providers available in the Amman commercial market are as follows:

- Availability and diversity of services

Most of the waste generators are aware of the waste collection services provided by service providers while they are not aware of the availability of recycling services in the market. Some are aware of some recycling practices such as sorting of recyclable but not familiar with other vital practices such as separation at source and SWM planning.

- Quality and reliability of services

Most of the waste generators perceive the current service providers as unprofessional due to their unreliable services, unqualified staff, price fluctuations, and many other factors that resulted in converting recycling 'doers' to 'ex-doers'.

On the other hand, some perceive the current recycling services available in the market as good and sufficient especially in the hospitality sector where waste generators can comply with their policies and targets.

- Cost of services

The cost of adopting recycling services is perceived as expensive especially when compared to the GAM SWM fee. Moreover, the 'one offer fits all' trend that service providers are currently promoting in the market is demotivating waste generators to adopt. Tailor-made offers are recommended to increase the confidence and motivation of waste generators to adopt recycling practices. Furthermore, some service providers are perceived as dishonest because they tend to increase the value of the recycling services contract after the first engagement.

SWM Business Models

Currently, the service providers in Amman municipality are adopting different SWM business models depending on the services they offer.

Below are 6 models that are dominant in the market among commercial waste generators.

1- Solid Waste Collection

This business model is based on solid waste collection only in exchange for a yearly fee. This practice covers the majority of the current SWM linkages due to the GAM fee exemption benefit, but it doesn't achieve the objective of the Activity which is recycling practice adoption.

2- Solid Waste and Recyclables Collection

This business model offers an integrated solution with two services: solid waste collection and recyclables sorting and collection in exchange for a lump sum yearly fee. This practice is successful in some sectors such as hospitality while it is perceived as expensive in others. It started to expand in the market due to the GAM fee exemption benefit in addition to complying with the environmental corporate policies and targets.

3- Recyclables Collection as a Service

This business model offers recyclables sorting and collection in exchange for a yearly fee. This model is not attractive because it is perceived as expensive by the majority of commercial waste generators and doesn't offer a GAM fee exemption benefit.

4- Free of Charge Recyclables Collection

This business model offers FOC recyclables sorting and collection. This model is attractive to waste generators although it doesn't offer GAM fee exemption benefits. The practice is applicable when waste generators are not aware of the SWM laws and bylaws including the benefits and penalties, the benefits of conducting proper recycling practices nor the available formal services and service providers in the markets.

5- Sold Recyclables

This business model is based on the type, quality, and volume of the recyclables generated by some commercial sectors such as industrial plants. This uniform and virgin type of recyclable is attractive to some service providers to buy because they can channel to end markets at a high price. This model is attractive also to those waste generators because their generated waste is another revenue stream.

6- Recyclables and Scrap Tendering

This business model is based on tendering the generated recyclable waste and scrap.

Areas for Improvement at SPs

There are many areas for improvement that service providers can implement to enhance their business and technical capabilities which will reflect on their offerings as well as winning rates.

Below are some suggested measures for improvement for service providers to consider based on the market findings:

1- Pre-engagement activities to be conducted by service providers to get the buy-in of the waste generator as well as the required inputs to prepare value propositions. The outcome of those activities will affect the technical and financial proposals.

The pre-engagement tools can be:

- PPT presentation that highlights the benefits of SWM and recycling practices.
- A guidebook about SWM and recycling best practices and factsheets.
- Site survey at the waste generator's facility to get the required data about the infrastructure that affects the preparation of the value proposition.
- Solid waste composition audit to get data about the generated recyclables such as type, quality, and volume. This data is needed for the preparation of the value proposition.

2- A quick pre-feasibility to be studied by service providers to validate their monetary benefits as well as the commercial waste generators' value proposition.

This brief exercise will include:

- All the services offered are listed in detail with the relevant expenditures. For example, certain tasks such as separation at source should be the responsibility of the waste generator and, if done by the service provider, then it will be a chargeable service.
- The CAPEX and OPEX resulted out of site survey such as the infrastructure of the waste generator's facility, the labor that will conduct recycling activities, the equipment needed such as compactors and bins, etc.
- The profit calculated from the value of the recyclables estimated after the solid waste composition audit.
- The recyclables' profit-sharing model.
- The cost-sharing model.

3- An integrated solution to be offered by bundling a set of services such as solid waste collection, separating/sorting at source, recyclables collection, SWM plan preparation, solid waste composition audit, relevant processes and procedures, reports, and training, etc. An integrated solution is perceived by the waste generator as an added value offer while the service provider can get higher revenue hence profit due to this proposition.

4- A comprehensive technical and financial proposal to be prepared and submitted by service providers which highlights the value proposition of adopting SWM and recycling practices. It has to include all the technical data resulting from the pre-engagement activities, the financial data from the pre-feasibility exercise including GAM SWM fee exemption due to recycling adoption, as well as the non-monetary benefits such as the environmental.

Annex XV Media Coverage During Q2/FY21

Brief Description	Date Released	Channel	Direct Mention of USAID	Language	Links
بحث خطة مشروع إعادة تدوير نفايات القطاع التجاري مع "الأمريكية للتنمية"	17 February 2021	• Addustour Newspaper • MOENV Facebook page • Mapecology (MorrocoNews Agency)	Yes	Arabic	https://bit.ly/3txANzL
البيئة: اجتماع تنسيقي لمناقشة مشروع إعادة التدوير في المملكة	4 February 2021	• Alrai and Alghad Newspaper • Petra • MOENV Facebook page	Yes	Arabic	https://bit.ly/3djlXpt